

CLAIMS

1. Method of de-icing energized electric lines by means of an apparatus capable for producing an angular offset adjustable between its terminals, comprising:
 - 5 selecting segments (4,6) of electrical lines to be de-iced;
 - connecting the segments (4,6) so as to form a loop;
 - connecting the apparatus in series with the segments (4,6) of the loop to be de-iced;
 - activating the apparatus; and
 - 10 adjusting the angular offset of the apparatus to impose an increase in current flowing in at least one of the segments (4,6) of the loop, thus causing the de-icing of said at least one of the segments (4,6) of the loop.
2. The method of de-icing according to claim 1, wherein the apparatus comprises
 - 15 a phase shifting transformer (2) provided with a tap changer (16), the angular offset being adjusted by acting on the tap changer (16).
3. The method of de-icing according to claim 2, wherein the apparatus comprises
 - 20 a capacitor (22) in parallel with the phase shifting transformer (2).
4. The method of de-icing according to claim 1, wherein the apparatus comprises a circuit breaker (28) and is activated by proceeding successively by the following operations:
 - 25 measuring a phase displacement at the terminals of the apparatus;
 - adjusting the internal angle of the apparatus to a same value of the phase displacement measured; and
 - manipulating the circuit breaker (28) of the apparatus into a closed position.
5. The method according to claim 4, wherein the operations further comprise :

manipulating a line circuit breaker (26) on one of the segments (4,6) of the loop into an open position for concentrating charging current in the other segment (4,6) of the loop.

- 5 6. The method of de-icing according to claim 1, wherein the apparatus is activated by proceeding successively by the following operations :
 - adjusting an internal angle of the apparatus to a value of zero;
 - manipulating a circuit breaker (34) connected between the segments (4,6) of the loop in a closed position so as to short-circuit the apparatus;
 - 10 manipulating a line circuit breaker (26) on one of the segments (4,6) of the loop into an open position for concentrating a charging current in the other segment (4,6) of the loop; and
 - manipulating the circuit breaker (34) connected between the segments of the loop in an open position.
- 15 7. The method of de-icing according to claim 1, wherein the electric lines are energy transport lines.
- 20 8. The method of de-icing according to claim 1, wherein the electric lines are energy distribution lines.
- 25 9. The method of de-icing according to claim 8, wherein the apparatus is mobile and the distribution lines are connectable to a sectioning point by means of an interruptor (54) having opposing terminals, the terminals of the apparatus being connected to the terminals of the interruptors (54), the interruptor (54) being manipulated into an open position during de-icing.
- 30 10. Method for de-icing energized electrical lines by means of an apparatus capable of producing a fixed angular offset between its terminals, comprising:
 - selecting segments (4,6) of electrical lines to be de-iced;
 - connecting the segments (4,6) so as to form a loop;

connecting the apparatus in series with the segments (4,6) of the loop to be de-iced;

activating the apparatus;and

5 connecting the apparatus in circuit with the loop, the apparatus and the line segments being previously chosen so that the angular offset imposes an increase in current flowing in at least one of the segments of the loop, thus causing the de-icing of said at least one of the segments (4,6) of the loop.

10 11.The method for de-icing according to claim 10, wherein the apparatus is connected with the segments (4,6) of the loop by an interrupting element, the apparatus being connected in circuit with the loop by manipulating the interrupting element.

15 12.The method for de-icing according to claim 11, wherein the interrupting element comprises an interruptor (54).

13.The method for de-icing according to claim 11, wherein the interrupting element comprises a circuit breaker (28).